

Fleming, Sheila

From: Kuntz, Michael G. (ECY) <mkun461@ECY.WA.GOV>
Sent: Monday, February 24, 2014 8:02 AM
To: Bailey, Marcia
Cc: Fleming, Sheila; Lynch, Kira; Zavala, Bernie
Subject: RE: Performance Sampling at Smith Property/ Ecology concurrence & Ecology's Complete concurrence with the Cleanup Action Plan/Engineering Design Report dated December 27, 2013 (Addendum).
Attachments: RE: question

Hello

Thank you for your involvement in this issue. If you have comment please forward it by C.O.B February 26, 2014.

Sincerely

Mike

From: Bailey, Marcia [mailto:bailey.marcia@epa.gov]
Sent: Friday, February 21, 2014 5:21 PM
To: Kuntz, Michael G. (ECY)
Cc: Fleming, Sheila; Lynch, Kira; Zavala, Bernie
Subject: RE: Performance Sampling at Smith Property/ Ecology concurrence & Ecology's Complete concurrence with the Cleanup Action Plan/Engineering Design Report dated December 27, 2013 (Addendum).

Hi Mike,

I did read Piper's response, and I have forwarded it to my supervisor (Sheila Fleming), to Kira Lynch and to Bernie Zavala as Piper is questioning not only my judgment but my expertise in this matter, so I would like my colleagues to weigh in independently.

However, I don't really understand what you mean by saying that you "may have overreacted." Are you saying you are doubting the need to do the performance sampling that consists of sub-slab sampling?

Are you thinking of an alternative approach, such as longer-term (i.e., greater than 24 hours) passive sub-slab sampling to estimate an average over time?

Sounds like we should talk, in any case, if you are interested in getting EPA's views, as Piper clearly is pushing back against sub-slab performance sampling during the right-of-way cleanup activities, which sounds like will only take two months.

Thanks for your consideration of my views, as always.
Marcia

From: Kuntz, Michael G. (ECY) [mailto:mkun461@ECY.WA.GOV]
Sent: Friday, February 21, 2014 1:34 PM
To: Bailey, Marcia
Subject: FW: Performance Sampling at Smith Property/ Ecology concurrence & Ecology's Complete concurrence with the Cleanup Action Plan/Engineering Design Report dated December 27, 2013 (Addendum).

Hello Marcia

Please read Piper's response and share your thoughts. I may have overreacted and I don't mind changing my mind.

Mike

From: Piper Roelen [<mailto:proelen@landauinc.com>]

Sent: Friday, February 21, 2014 1:20 PM

To: Kuntz, Michael G. (ECY)

Cc: DeYoung, Mindy L.; Dunn, Loren

Subject: RE: Performance Sampling at Smith Property/ Ecology concurrence & Ecology's Complete concurrence with the Cleanup Action Plan/Engineering Design Report dated December 27, 2013 (Addendum).

Mike,

Thank you for Ecology's response to the email regarding performance and confirmation sampling at the Smith property. Your help on this site has been very much appreciated. But, before we can move forward, we need some specific additional guidance and information. In order to proceed with sub-slab soil vapor sampling at the Smith property as Ecology is requiring, we need a specific technical justification for doing so.

In my January 29, 2013 conversation with you, Ecology concurred with collecting one Tedlar bag sample from sub-slab vapor monitoring point VP-1 half way through the ROW cleanup. Yet, Ecology is now requiring alternating weekly sub-slab vapor monitoring from VP-1 and VP-2 in the Smith basement the duration of the right of way (ROW) cleanup (about 10 samples).

Ecology justifies increasing the scope of soil gas sampling by 10 times, "based on the result of comments and concerns received by Mr. Aaron Smith and Ms. Marcia Bailey of the U.S. Environmental Protection Agency regarding subsurface conditions beneath the Smith residence."

We understand Ecology wanting to take EPA's opinions into consideration, but remind you that EPA has no jurisdiction at this site. We also understand that Ms. Bailey of EPA is a toxicologist, not a site remediation expert or manager, and that she has not been assigned to this site by EPA. Although she suggests that soil vapor sampling is needed for performance monitoring, Ms. Bailey's comments dated February 10, 2014 point out that during confirmation sampling at the Smith property TCE was not detected in soil vapor and the concentration of TCE in indoor air was "1.5 orders of magnitude below concentrations of concern." PCE concentrations in soil vapor and indoor air were similarly well below the screening level and cleanup level, respectively. Ms. Bailey further points out that confirmational soil samples collected in the Smith property driveway in December showed that the highest PCE concentrations detected were 2 to 3 times below the cleanup level. (16 and 27 ug/kg detected; 50 ug/kg cleanup level).

Further, as Ecology points out, "no previous subsurface [soil gas] sampling results of conditions beneath the Smith Residence performed after terminating remediation directly associated with the Smith Property and Heaven's Supply property revealed an exceedence of soil gas screening levels." Nor is soil gas screening required under MTCA or Ecology guidance when indoor air is being directly sampled and analyzed. Because there are no MTCA regulatory cleanup levels for soil gas, no soil gas cleanup standards (no cleanup levels or point of compliance where soil gas cleanup levels must be obtained) have been established for the site (see Final Cleanup Action Plan, Section 3.2.1 and 3.2.2). Soil gas sampling is used as a tool to evaluate the VI pathway that can be used to identify where vapors are originating from if evidence of vapor intrusion into indoor air is identified.

Ms. Bailey suggests that we conduct additional soil gas performance sampling, and that the work include sampling at VP-2 in addition to VP-1. She does not provide technical justification to support this. Nor does she demand weekly soil gas sampling.

As we have explained, the evidence that we have collected supports the conclusion that there is no risk of lateral migration from remaining ROW contamination. The remaining contamination is located much farther away from the Smith property than the contamination that was cleaned up at the Smith property. Soil gas migration from the ROW will be prevented from lateral migration by robust soil vapor extraction, just as it was during the remedy work on the Heavens Supply site. The levels remaining in the ROW are significantly below the levels that formerly existed on the Heavens Supply site, located mere feet from the Smith property. And all data collected to date confirms that Mr. Smith's property is clean at all points of compliance.

As you know, we have done, without hesitation and voluntarily, any of the things that are needed to clean up this site. We are about to commence, again voluntarily, remediation of the City's roadway. But, we need to have a sound technical justification for our client to incur additional costs to collect this sampling, when all data indicates this is unnecessary.

If there is no such technical justification, we would appreciate Ecology revising the requirement of weekly soil gas sampling at the Smith property to the following:

- One soil gas sampling event approximately halfway through the remediation, collecting samples from VP-1 and VP-2.

We really do appreciate Ecology's continued help on this site, and value your input and feedback. We look forward to receiving Ecology's response and working with you to finalize the work at the site. We are eager to get started.

Sincerely,

Piper Roelen, PE
Landau Associates, Inc.

From: Kuntz, Michael G. (ECY) [<mailto:mkun461@ECY.WA.GOV>]

Sent: Thursday, February 20, 2014 10:20 AM

To: Piper Roelen

Cc: DeYoung, Mindy L.; Dunn, Loren; Martin Valeri; Brandon Duncan; Madakor, Nnamdi (ECY); A. SMITH; Bailey, Marcia

Subject: RE: Performance Sampling at Smith Property/ Ecology concurrence & Ecology's Complete concurrence with the Cleanup Action Plan/Engineering Design Report dated December 27, 2013 (Addendum).

Hello Piper

Ecology concurs with the performance sampling plan at the Smith Residence as outlined in the bulleted items below. This concurrence completes Ecology's concurrence with the Cleanup Action Plan/Engineering Design Report dated December 27, 2013 (Addendum). Our earlier concurrence is found in the attached e-mail of Tue 1/28/2014 8:32 AM.

The performance sampling plan covers the duration of in situ thermal remediation from the time power to the electrodes is initiated until it the power is terminated. An exceedence of indoor air will result in the immediate shut down of power to the electrodes.

Conformational sampling on the Smith property will occur after the power to the electrodes is terminated and after the soil vapor extraction system has been terminated for at least two weeks. Ecology's concurrence with a conformational sampling plan is a necessary before conformational sampling commences. Mr. Smith will have opportunity to review and provide comment to Ecology on the conformational sampling.

Finally, although no previous subsurface sampling results of conditions beneath the Smith Residence performed after terminating remediation directly associated with the Smith Property and Heaven's Supply property revealed an exceedence of soil gas screening levels, Ecology's addition of VP1 and VP-2 were largely the result of comments and

concerns received by Mr. Aaron Smith and Ms. Marcia Bailey of the U.S. Environmental Protection Agency regarding subsurface conditions beneath the Smith residence.

- With Mr. Smith's approval, performance air sampling will be performed on a weekly basis at the Smith property during the ROW cleanup.
- On alternating weeks, indoor air sampling that will consist of collecting 24-hour sample in a Summa canister placed in the following locations:
 1. from the breathing zone (5 feet off the floor) in the basement of the main house (same location as the December 2013 confirmation sampling event)
 2. adjacent to the floor drain in the basement of the main house (same location as the December 2013 confirmation sampling event)
- Additionally, on alternating weeks, sub-slab vapor monitoring that will consist of collecting one Tedlar bag sample from the following sub-slab vapor monitoring points:
 1. VP-1 (southern of the two monitoring points in the basement)
 2. VP-2 (northern of the two monitoring points in the basement)
- Sample collection and laboratory analysis procedures will be performed as detailed in the Addendum

Please reference this e-mail in future communications regarding implementation, completion, and reporting of performance sampling at the Smith residence and of the Cleanup Action Plan/Engineering Design Report dated December 27, 2013 (Addendum).

If you or the copied have questions regarding this concurrence please do not hesitate to contact me.

Sincerely

Mike

From: Piper Roelen [<mailto:proelen@landauinc.com>]
Sent: Tuesday, February 18, 2014 3:05 PM
To: Kuntz, Michael G. (ECY)
Cc: DeYoung, Mindy L.; Dunn, Loren; Martin Valeri; Brandon Duncan
Subject: Performance/Confirmation Sampling at Smith Property

Mike,

Per our conversation this morning, we understand that Ecology's goals for performance monitoring at the Smith resident include accounting for a) general indoor air, b) potential contaminant vapor migration from the ROW through the sewer backfill, and c) spatial variation in soil vapor; therefore, Ecology is requiring additional monitoring beyond what is described in the email below. Based on these goals and after further discussion, we also understand that Ecology is likely to request that we conduct performance monitoring at the Smith residence as follows:

- With Mr. Smith's approval, performance air sampling will be performed on a weekly basis at the Smith property during the ROW cleanup.
- On alternating weeks, indoor air sampling that will consist of collecting 24-hour sample in a Summa canister placed in the following locations:
 1. from the breathing zone (5 feet off the floor) in the basement of the main house (same location as the December 2013 confirmation sampling event)
 2. adjacent to the floor drain in the basement of the main house (same location as the December 2013 confirmation sampling event)

- Additionally, on alternating weeks, sub-slab vapor monitoring that will consist of collecting one Tedlar bag sample from the following sub-slab vapor monitoring points:
 1. VP-1 (southern of the two monitoring points in the basement)
 2. VP-2 (northern of the two monitoring points in the basement)
- Sample collection and laboratory analysis procedures will be performed as detailed in the Addendum.

We would like to point out that this plan would include essentially the same quantity and frequency of sampling at the Smith residence as was conducted during the initial Heavens Supply property remediation (which was in much closer proximity to the Smith residence). Although we do not believe that migration through the sewer backfill into the Smith house is likely based on the distance of the remediation from the house, we understand Ecology's rationale for requesting monitoring to address this possibility and agree to the indoor air sampling indicated above. However, because we have previously demonstrated that cleanup of soil at the Smith property has been completed in compliance with the cleanup standards, we do not understand the necessity of conducting weekly sub-slab vapor monitoring. As noted in the email below, Ecology was originally agreeable to collecting just one sub-slab vapor sample during the ROW cleanup. If Ecology is now requiring weekly sub-slab vapor sampling (for potentially up to 10 weeks), we request that Ecology provide technical justification for this required monitoring before we can agree to such.

We appreciate Ecology's continued input and feedback on these issues and look forward to receiving Ecology's response.

Regards,

Piper Roelen, PE
Landau Associates, Inc.

From: Piper Roelen
Sent: Monday, February 03, 2014 5:11 PM
To: 'Kuntz, Michael G. (ECY)'
Cc: 'DeYoung, Mindy L.'; Dunn, Loren
Subject: Performance/Confirmation Sampling at Smith Property

Mike,

Thank you for providing Ecology's contingent approval for the Addendum to the Cleanup Action Plan/Engineering Design Report dated December 27, 2013 (Addendum).

We understand and concur with Ecology's condition of moving the borehole on Heavens Supply property 10 feet southward to the extent possible. As requested by Ecology, please find attached a revised figure showing proposed soil confirmation sampling locations. The new location shown on the Heavens Supply property is in accordance with Ecology's condition.

Regarding Ecology's exclusion on the contingent approval of required performance and confirmation air sampling at the Smith property, we have the following comments:

Consistent with Ecology's exclusion and our telephone conversation on January 29, 2013, the following is our plan for performance air sampling at the Smith property during the Greenwood Avenue North right-of-way (ROW) cleanup:

- With Mr. Smith's approval, performance air sampling will be performed on a weekly basis at the Smith property during the ROW cleanup. Performance sampling will consist of collecting 24-hour sample in a Summa canister placed adjacent to the floor drain in the basement of the main house.
- Additionally, one Tedlar bag sample will be collected from sub-slab vapor monitoring point VP-1 one time at approximately half way through the ROW cleanup.
- Sample collection and laboratory analysis procedures will be performed as detailed in the Addendum.

Please let us know if you concur with this plan for performance sampling at the Smith property.

Regarding Ecology's exclusion regarding confirmation sampling at the Smith property after completion of the ROW cleanup, it is our position that since confirmation soil and air sampling was completed on the Smith property in December 2013 under existing site conditions (i.e., with contamination remaining in ROW soil) which indicated that the soil vapor pathway is not impacting indoor air at the Smith residence, that there would be no need to repeat this sampling if performance monitoring during the ROW cleanup continues to support the results of the December 2013 sampling. Therefore, we request clarification as to whether Ecology is requiring that indoor air confirmation sampling is repeated at the Smith property after the ROW cleanup regardless of the performance sampling results. If it is required, we also request that Ecology provide justification for this requirement.

We appreciate Ecology's continued involvement and responsiveness on this project and look forward to hearing your thoughts on this plan.

Regards,

Piper Roelen, P.E. ♦ Senior Associate

Landau Associates, Inc.

130 2nd Avenue S, Edmonds, WA 98020

425.778.0907 ♦ fax 425.778.6409 ♦ cell 425.503.6784 ♦ direct 425.329.0319

proelen@landauinc.com ♦ www.landauinc.com

Landau Associates is proudly **carbon neutral** through our sustainable practices and financial support of U.S.-based carbon-reduction projects.

NOTICE: This communication may contain privileged or other confidential information. If you have received it in error, please advise the sender by reply email and immediately delete the message and any attachments without copying or disclosing the contents. Thank you.